Tektronix

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TekTools Handheld Digital Multimeters

DMM 155
DMM 156
DMM 157
DMM 250
DMM 251
DMM 252
DMM 254
DMM 353
THM 550
THM 560
THM 565

The TekTools™ Handheld Digital Multimeters from Tektronix are compact, battery powered test instruments. Varying by model, these instruments measure resistance, AC and DC current, AC and DC voltage, capacitance, and frequency, as well as testing SCRs, transistors, batteries, diodes, and LEDs.

The three new TekMeters™ are easy to use, rugged, handheld, autoranging, true RMS DMMs with built-in 5 MHz digital oscilloscopes. Tektronix designed the TekMeters with the service market in mind. They are most effective in electrical installation, maintenance, and service applications, as well as in electronic service applications such as low frequency circuits in control systems and security installations.

Whether you are a hobbyist, a laboratory technician, or an industrial maintenance engineer, one of these eleven meters is sure to fit both your measurement needs and your budget. TekTools are designed and manufactured to comply with safety standards established by UL, ETL, TUV, and CSA.

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Selection Guide

Handheld Digital Multimeters

DMM 155

see page 4

DMM 156

see page 4

DMM 157

see page 4

DMM 250

see page 4

DMM 251

see page 5

Key Specifications

Display Range	2000 counts	2000 counts	2000 counts	3999 counts	4000 counts
Basic DC Volts Accuracy	0.7%	0.5%	0.5%	0.5%	0.3%
AC Voltage Ranges	2 V to 600 V	2 V to 600 V	2 V to 600 V	2 V to 750 V	400 mV to 750 V
DC Voltage Ranges	200 mV to 600 V	200 mV to 600 V	200 mV to 600 V	200 mV to 1000 V	400 mV to 1000 V
AC Current Ranges	2 mA to 10 A	—	2 mA to 10 A	200 µA to 10 A	4 mA to 10 A
DC Current Ranges	2 mA to 10 A	—	2 mA to 10 A	200 µA to 10 A	4 mA to 10 A
Resistance Ranges	200 Ω to 20 MΩ	200 Ω to 20 MΩ	200 Ω to 20 MΩ	200 Ω to 20 MΩ	400 Ω to 40 MΩ
Capacitance Ranges	—	2 µF to 200 µF	2 µF to 200 µF	—	4 nF to 40 µF
Frequency Ranges	—	—	—	—	100 Hz to 1 MHz
Autoranging Digital Oscilloscope	—	—	—	—	—
Digitizers	—	—	—	—	—

Customer Requested Features

Analog Display	—	—	—	Yes	Yes
Auto Power Off	Yes	Yes	Yes	Yes	Yes
Autoranging	Yes	Yes	Yes	Yes	Yes
Compare Mode	—	—	—	Yes	Yes
Continuity Check/Beeper	Yes	Yes	Yes	Yes	Yes
Data Hold	Yes	Yes	Yes	Yes	Yes
Digital Display	3-1/2 digit LCD	3-1/2 digit LCD	3-1/2 digit LCD	3-1/2 digit LCD	3-3/4 digit LCD
Diode Test	Yes	Yes	Yes	Yes	Yes
LED Test	—	—	—	—	—
Line Power Quality Test	—	—	—	—	—
Low Battery Indicator	Yes	Yes	Yes	—	—
Memory Offset	Yes	Yes	Yes	Yes	Yes
Motor Test	—	—	—	—	—
Overrange Indication	Yes	Yes	Yes	Yes	Yes
Save Screens	—	—	—	—	—
SCR Test	—	—	—	—	—
Setup Memory	—	—	—	—	—
Store Waveform Data	—	—	—	—	—
Transistor Leakage ICEO Test	—	—	—	—	—
Transistor hFE Test (PNP or NPN)	—	—	—	—	—
Water-Resistant Case	Yes	Yes	Yes	Yes	Yes
Safety Certification	ETL, CSA	ETL, CSA	ETL, CSA	UL, CSA	UL, TUV, CSA

DMM 252

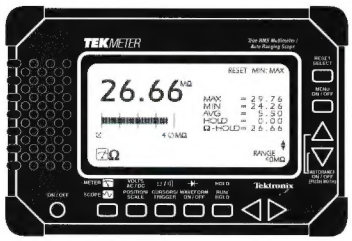
see page 5

DMM 254

see page 5

DMM 353

see page 6



THM 550

see page 7

THM 560

see page 7

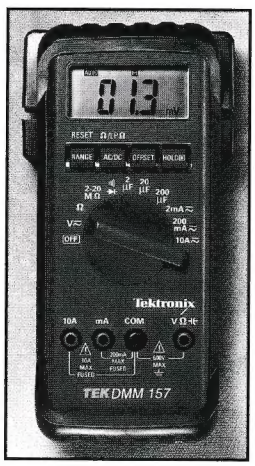
THM 565

see page 7

4000 counts	4000 counts	N/A	4000 counts	4000 counts	4000 counts
0.1%	0.1%	0.5% (R&C)	0.5%	0.5%	0.5%
400 mV to 750 V	400 mV to 750 V	—	400 mV to 600 V	400 mV to 600 V	400 mV to 600 V
400 mV to 1000 V	400 mV to 1000 V	—	400 mV to 850 V	400 mV to 850 V	400 mV to 850 V
4 mA to 10 A	4 mA to 10 A	—	*400 mA to 4000 A	*400 mA to 4000 A	*400 mA to 4000 A
4 mA to 10 A	4 mA to 10 A	—	*400 mA to 4000 A	*400 mA to 4000 A	*400 mA to 4000 A
400 Ω to 40 MΩ	400 Ω to 40 MΩ	200 Ω to 20 MΩ	400 Ω to 40 MΩ	400 Ω to 40 MΩ	400 Ω to 40 MΩ
4 nF to 40 µF	4 nF to 40 µF	200 pF to 20 mF	—	—	—
100 Hz to 1 MHz	100 Hz to 1 MHz	—	DC to 5 MHz	DC to 5 MHz	DC to 5 MHz
—	—	—	One channel	Two channel	Two channel
—	—	—	One 8-bit, 25 MS/s	Two 8-bit, 25 MS/s	Two 8-bit, 25 MS/s
Yes	Yes	—	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	—	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
3-3/4 digit LCD	3-3/4 digit LCD	3-1/2 digit LCD	3-3/4 digit LCD	3-3/4 digit LCD	3-3/4 digit backlit LCD
Yes	Yes	Yes	Yes	Yes	Yes
—	—	Yes	—	—	—
—	—	—	—	—	Yes
—	—	—	Yes	Yes	Yes
Yes	Yes	—	Yes	Yes	Yes
—	—	—	—	—	Yes
Yes	Yes	Yes	—	—	—
—	—	—	1 screen	1 screen	8 screens
—	—	Yes	—	—	—
—	—	—	4 setups	4 setups	8 setups
—	—	—	4 waveforms	4 waveforms	8 waveforms
—	—	Yes	—	—	—
—	—	Yes	—	—	—
Yes	Yes	Yes	—	—	—
UL, TUV, CSA	ETL, CSA	N/A	UL, CSA	UL, CSA	UL, CSA

*With current probe (see page 8).

STANDARD SPECIFICATIONS DMM 155 / DMM 156 / DMM 157 / DMM 250 (unless noted)



The **DMM 155** is designed for indoor/outdoor service of electrical equipment. It has functions to satisfy the needs of most hobbyists.

The **DMM 156** is the multimeter for hobbyists and technicians testing voltage, capacitance, resistance, and diodes, but who don't need current measurement capability.

The **DMM 157** is ideal for the service technician or student needing a rugged, multifunction product with good accuracy for a reasonable price.

The **DMM 250** is designed for field service, laboratory work, and for the electronics hobbyist.

DC Volts

Ranges
200 mV, 2 V, 20 V, 200 V, 600 V
(**DMM 250**)
200 mV, 2 V, 20 V, 200 V, 1000 V

Accuracy
200 mV: ± (0.8% of reading ± 2 counts);
2 V to 600 V: ± (0.5% of rdg ± 2 counts)
(**DMM 155**)
200 mV: ± (1.0% of reading ± 2 counts);
2 V to 600 V: ± (0.7% of rdg ± 2 counts)
(**DMM 250**)
± (0.5% of reading ± 1 count)

Input Resistance
10 MΩ paralleled by < 100 pF

Overload Protection
600 V DC/AC rms;
(**DMM 250**)
1100 V (DC or peak to peak)

Resolution (by range)

200 mV	100 µV
2 V	1 mV
20 V	10 mV
200 V	100 mV
600 V, 1000 V	1 V

AC Volts

Ranges
2 V, 20 V, 200 V, 600 V
(**DMM 250**)
2 V, 20 V, 200 V, 750 V

Accuracy
50-400 Hz: ± 1.5% of reading ± 4 counts
(**DMM 155**)
50-400 Hz: ± 1.7% of reading ± 4 counts
(**DMM 250**)
± 1.25% of reading ± 5 counts

Input Resistance
10 MΩ paralleled by < 100 pF

Overload Protection
600 V AC rms;
(**DMM 250**)
1100 V (DC or peak to peak)

Resolution (by range)

2 V	1 mV
20 V	10 mV
200 V	100 mV
600 V, 750 V	1 V

DC Current (DMM 155, 157, 250 only)

Ranges
2 mA, 200 mA, 10 A
(**DMM 250**)
200 µA, 20 mA, 200 mA, 2 A, 10 A

Accuracy
(**DMM 155**)
2 mA, 200 mA: ± 1.2% of reading ± 2 counts;
10 A: ± 2.5% of reading ± 5 counts
(**DMM 157**)
2 mA, 200 mA: ± 1.0% of reading ± 2 counts;
10 A: ± 2.5% of reading ± 3 counts
(**DMM 250**)
200 µA, 20 mA, 200 mA:
± 0.75% of reading ± 1 count;
2 A, 10 A: ± 1.5% of reading ± 3 counts

Overload Protection
0-10 A range: 13 A (250 V) HBC 6KA fuse;
Other ranges: 1 A (250 V) HBC 6KA fuse
(**DMM 250**)
0-2 A range: 3 A (600 V) fast-blow fuse;
0-10 A range: unfused

Resolution (by range)

2 mA	1 µA
200 mA	100 µA
10 A	10 mA
(**DMM 250**)	
200 µA	0.1 µA
20 mA	10 µA
200 mA	100 µA
2 A	1 mA
10 A	10 mA

Burden Voltage
2 A, 10 A ranges: 900 mV max;
Other ranges: 600 mV max

AC Current (DMM 155, 157, 250 only)

Ranges
2 mA, 200 mA, 10 A
(**DMM 250**)
200 µA, 20 mA, 200 mA, 2 A, 10 A

Accuracy
(**DMM 155**)
2 mA, 200 mA: ± 1.7% of rdg ± 4 counts;
10 A: ± 2.9% of reading ± 7 counts
(**DMM 157**)
2 mA, 200 mA: ± 1.5% of rdg ± 4 counts;
10 A: ± 2.9% of reading ± 5 counts
(**DMM 250**)
200 µA, 20 mA, 200 mA:
± 1.5% of reading ± 3 counts;
2 A, 10 A: ± 2.5% of reading ± 5 counts

Overload Protection
0-10 A range: 13 A (250 V) HBC 6KA fuse;
Other ranges: 1 A (250 V) HBC 6KA fuse
(**DMM 250**)
0-2 A range: 3 A (600 V) fast-blow fuse;
0-10 A range: unfused

Resolution (by range)

2 mA	1 µA
200 mA	100 µA
10 A	10 mA
(**DMM 250**)	
200 µA	0.1 µA
20 mA	10 µA
200 mA	100 µA
2 A	1 mA
10 A	10 mA

Burden Voltage
2 A, 10 A ranges: 900 mV max;
Other ranges: 600 mV max

Resistance

Ranges
200 Ω, 2 kΩ, 20 kΩ, 200 kΩ, 2 MΩ, 20 MΩ

Accuracy

(**DMM 157**)	
200 Ω	± 1.0% of reading ± 2 counts
2 kΩ	± 0.8% of reading ± 2 counts
20 kΩ	± 0.8% of reading ± 2 counts
200 kΩ	± 0.8% of reading ± 2 counts
2 MΩ	± 0.8% of reading ± 2 counts
20 MΩ	± 1.9% of reading ± 4 counts
(**DMM 155**)	
200 Ω	± 1.2% of reading ± 2 counts
2 kΩ	± 1.0% of reading ± 2 counts
20 kΩ	± 1.0% of reading ± 2 counts
200 kΩ	± 1.0% of reading ± 2 counts
2 MΩ	± 1.0% of reading ± 2 counts
20 MΩ	± 2.5% of reading ± 4 counts
(**DMM 250**)	
200 Ω	± 0.75% of rdg ± 1 count
2 kΩ	± 0.75% of rdg ± 1 count
20 kΩ	± 0.75% of rdg ± 1 count
200 kΩ	± 0.75% of rdg ± 1 count
2 MΩ	± 1.0% of rdg ± 3 counts
2–20 MΩ	± 1.5% of rdg ± 5 counts

Overload Protection
600 V DC/AC rms
(**DMM 250**)
500 V DC/AC rms, all ranges

Resolution

200 Ω	0.1 Ω
2 kΩ	1 Ω
20 kΩ	10 Ω
200 kΩ	100 Ω
2 MΩ	1 kΩ
20 MΩ	10 kΩ

Test Voltage (open circuit)
Low power ohms: 0.45 V max;
High power ohms: 0.9 V max

Capacitance (DMM 156, DMM 157 only)

Ranges
2 µF, 20 µF, 200 µF

Resolution (by range)

2 µF	1 nF
20 µF	10 nF
200 µF	100 nF

Accuracy
± (1.9% of reading + 5 counts)

Input Protection
600 V DC/AC rms

Continuity Check

Buzzer sounds

Safety

ETL, CSA
(**DMM 250**) UL, CSA

Physical Characteristics

Size (W x L x D)
(**DMM 155**) 85 mm x 165 mm x 38 mm
(**DMM 156**) 80 mm x 165 mm x 36 mm
(**DMM 157**) 85 mm x 165 mm x 38 mm
(**DMM 250**) 84 mm x 175 mm x 31 mm

Weight (including battery)
(**DMM 155**) 0.38 kg
(**DMM 156**) 0.33 kg
(**DMM 157**) 0.39 kg
(**DMM 250**) 0.34 kg

Operating Ambient Temperature
0°C to 50°C

Operating Relative Humidity
0% to 80% (0°C to 35°C)
0% to 60% (35°C to 50°C)

Power Supply
9 V battery

Battery Life
600 hours typical (alkaline)
(**DMM 250**) 500 hours typical (alkaline)

Ordering Information

Included Accessories

Test Leads
196-3408-00
(**DMM 250**) 012-1381-00

Spare Fuse (**DMM 250**) 159-5001-00

Battery 9 V battery

User Manual
(**DMM 155/DMM 157**) 070-8943-00
(**DMM 156**) 070-8942-00
(**DMM 250**) 070-8941-00

Holster
(**DMM 155/DMM 157**) 118-9023-00
(**DMM 156**) 118-9024-00

Optional Accessories

Fuses (**DMM 155, DMM 157 only**)
159-0355-00 (250 V – 1 Amp)
159-0357-00 (250 V – 13 Amp)

Holster (**DMM 250 only**) 118-8733-00

STANDARD SPECIFICATIONS DMM 251 / DMM 252 / DMM 254 (unless noted)

The **DMM 251** is an extended function DMM for users with moderate accuracy requirements. Safety features give a high level of operator protection.

The **DMM 252** has the same safety features and measurement functions as the DMM 251 but is a more accurate instrument.

The **DMM 254** is for the professional who needs full function capabilities with exceptional accuracy. It provides precise true RMS measurement of all AC signals.

DC Volts

Ranges
400 mV, 4 V, 40 V, 400 V, 1000 V

Accuracy
(**DMM 251**)
All ranges: ± 0.3% of reading ± 2 counts
(**DMM 252**)
All ranges: ± 0.1% of reading ± 2 counts; except 400 mV range:
± 0.3% of reading ± 2 counts
(**DMM 254**)
All ranges except 400 mV:
± (0.1% of reading ± 2 counts)

Input Resistance
10 MΩ, paralleled by < 100 pF

Overload Protection 1100 V peak to peak

Resolution (by range)

400 mV	100 µV
4 V	1 mV
40 V	10 mV
400 V	100 mV
1000 V	1 V

AC Volts

Ranges 400 mV, 4 V, 40 V, 400 V, 750 V

Accuracy
(**DMM 251**)
(all ranges except 400 mV)
50-60 Hz: ± 0.7% of reading ± 5 counts;
40 Hz-1 kHz: ± 1% of reading ± 5 counts
(**DMM 252, DMM 254 True RMS**)
(all ranges except 400 mV)
50-60 Hz: ± 0.5% of reading ± 5 counts;
40 Hz-1 kHz: ± 1% of reading ± 5 counts

Input Resistance
10 MΩ, paralleled by < 100 pF

Overload Protection 1100 V peak to peak

Resolution (by range)

400 mV	100 µV
4 V	1 mV
40 V	10 mV
400 V	100 mV
750 V	1 V

DC Current

Ranges
4 mA, 40 mA, 400 mA, 10 A

Accuracy
4 mA, 40 mA, 400 mA:
± 0.4% of reading ± 2 counts;
10 A: ± 0.8% of reading ± 4 counts

Overload Protection
0-10 A range: 15 A (600 V) IR 100 KA fuse;
Other ranges: 1 A (600 V) IR 10 KA fuse

Resolution (by range)

4 mA	1 µA
40 mA	10 µA
400 mA	100 µA
A	10 mA

Burden Voltage
0-10 A range: 1 V max;
Other ranges: 800 mV max

AC Current

Ranges 4 mA, 40 mA, 400 mA, 10 A

Accuracy
(**DMM 251**)
4 mA, 40 mA, 400 mA:
± 1.0% of reading ± 5 counts;
10 A: ± 1.0% of reading ± 5 counts
(**DMM 252**)
4 mA, 40 mA, 400 mA:
± 0.6% of reading ± 5 counts;
10 A: ± 1.0% of reading ± 5 counts
(**DMM 254 True RMS**)
All ranges: ± 1% of reading ± 5 counts

Overload Protection
0-10 A range: 15 A (600 V) IR 100 KA fuse;
Other ranges: 1 A (600 V) IR 10 KA fuse

Resolution (by range)

4 mA	1 µA
40 mA	10 µA
400 mA	100 µA
A	10 mA

Burden Voltage
0-10 A range: 1 V max;
Other ranges: 800 mV max

Resistance

Ranges
400 Ω, 4 kΩ, 40 kΩ, 400 kΩ, 4 MΩ, 40 MΩ

Accuracy (relative mode)

400 Ω	± 0.4% of reading ± 4 counts
4 kΩ	± 0.4% of reading ± 2 counts
40 kΩ	± 0.4% of reading ± 2 counts
400 kΩ	± 0.4% of reading ± 2 counts
4 MΩ	± 0.6% of reading ± 3 counts
40 MΩ	± 1.5% of reading ± 5 counts

Overload Protection 600 V DC/AC rms

Resolution (by range)

400 Ω	0.1 Ω
4 kΩ	1 Ω
40 kΩ	10 Ω
400 kΩ	100 Ω
4 MΩ	1 kΩ
40 MΩ	10 kΩ

Test Voltage Open circuit: 450 mV

Capacitance

Ranges 0 – 40 µF in 5 ranges

Resolution (by range)

4 nF	1 pF
40 nF	10 pF
400 nF	100 pF
4 µF	1 nF
40 µF	10 nF

Accuracy
4 nF range in relative mode:
± (1% of reading + 40 counts);
Other ranges: ± (1% of reading + 4 counts) for 40 pF to 20 µF,
± (5% of reading + 8 digits) for ≥ 20 µF

Frequency

Ranges 0 – 1 MHz in 5 ranges

Resolution

100 Hz	0.01 Hz
1 kHz	0.1 Hz
10 kHz	1 Hz
100 kHz	10 Hz
1 MHz	100 Hz

Accuracy
1 MHz range: ± 0.5% of reading ± 4 counts;
Other ranges: ± 0.1% of reading ± 4 counts

Input Protection 600 V DC/AC rms

Diode Test

Max. Test Current 0.6 mA

Max. Open Circuit Voltage 3.6 V

Resolution 1 mV

Accuracy ± 1.0% ± 2 counts

Overload Protection 600 V DC/AC rms

Continuity Check

Buzzer sounds if circuit resistance ≤ 30 Ω

Adapt Range

Display 10 counts per mV DC

Accuracy ± 0.3% of reading ± 4 counts

Safety

(DMM 251, DMM 252) UL, TUV, CSA
(DMM 254) ETL, CSA

Physical Characteristics

Size (W x L x D)
86 mm x 185 mm x 32 mm

Weight (with battery) 0.37 kg

Operating Ambient Temperature
-10°C to 50°C

Operating Relative Humidity 0% to 80%

Power Supply
(DMM 251, DMM 252) Two AAA batteries
(DMM 254) 9 V Battery

Battery Life
(DMM 251, DMM 252) 1200 hours typical (alkaline)
(DMM 254) 500 hours typical (alkaline)

Ordering Information

DMM 251 / DMM 252 / DMM 254

Included Accessories

Test Leads
196-3359-00

Battery Two AAA batteries;
(DMM 254) 9 V battery

User Manual 070-8944-00

Holster 118-8732-00

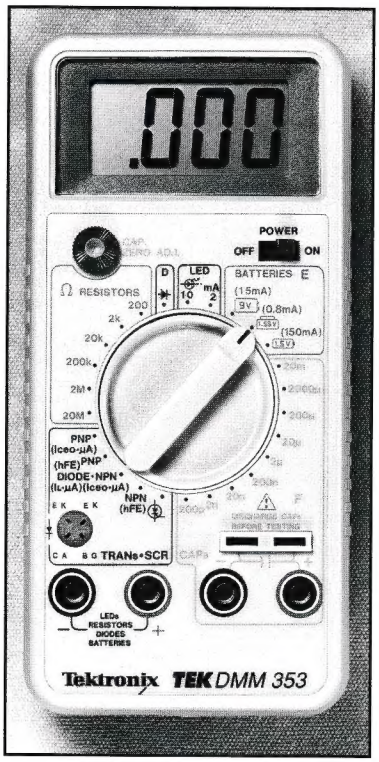
Optional Accessories

Soft Carrying Case
(fits with holster removed)
118-8338-00

Fuse, 600 V – 1 Amp
159-0337-00

Fuse, 600 V – 15 Amp
159-0287-00

- **Capacitance Measurement**
- **Resistance Measurement**
- **SCR Go/No-go Test**



The **DMM 353** is an indispensable tool for the electronic service technician. With several ranges for versatility, it will test transistors, diodes, LEDs, capacitors, and batteries.

STANDARD SPECIFICATIONS

Capacitance

Ranges 0–20 mF in 9 ranges

Resolution

200 pF	0.1 pF
2 nF	1 pF
20 nF	10 pF
200 nF	100 pF
2 µF	1 nF
20 µF	10 nF
200 µF	100 nF
2000 µF	1 µF
20 mF	10 µF

Accuracy

200 pF	± 0.5% of reading ± 5 counts + 0.5 pF (200 pF range only)
2 nF	± 0.5% of reading ± 5 counts
20 nF	± 0.5% of reading ± 5 counts
200 nF	± 0.5% of reading ± 5 counts
2 µF	± 0.5% of reading ± 5 counts
20 µF	± 0.5% of reading ± 5 counts
200 µF	± 0.5% of reading ± 5 counts
2000 µF	± 1.0% of reading ± 1 count
20 mF	± 1.5% of reading ± 1 count

Test Frequencies (by range)
200 pF, 2 nF, 20 nF, 200 nF, 2 µF: 820 Hz;
20 µF: 82 Hz;
200 µF, 2000 µF, 20 mF: 8.2 Hz

Test Voltage
3.2 V peak maximum
("+" input terminal voltage is always higher than "-" input terminal)

Overload Protection from charged capacitors
>50 V DC by 0.25 A (250 V) fast-blow fuse

Resistance

Ranges
200 Ω, 2 kΩ, 20 kΩ, 200 kΩ, 2 MΩ, 20 MΩ

Accuracy

200 Ω	± 0.5% of reading ± 4 counts
2 kΩ	± 0.5% of reading ± 1 count
20 kΩ	± 0.5% of reading ± 1 count
200 kΩ	± 0.5% of reading ± 1 count
2 MΩ	± 0.5% of reading ± 1 count
20 MΩ	± 2.0% of reading ± 1 count

Overload Protection
500 V DC/AC rms, all ranges

Resolution

200 Ω	0.1 Ω
2 kΩ	1 Ω
20 kΩ	10 Ω
200 kΩ	100 Ω
2 MΩ	1 kΩ
2 to 20 MΩ	10 kΩ

Max. Open Circuit Voltage
200 Ω range: 3.2 V
2 kΩ to 20 MΩ ranges: 0.5 V

Diode Test

Max. Test Current 1.5 mA

Max. Open Circuit Voltage 3.2 V

Accuracy ± 1.5% of reading ± 5 counts

Resolution 1 mV

Overload Protection
500 VDC / VAC rms maximum

SCR Test

Test Result Go/No-go

Transistor hFE Test (PNP or NPN)

hFE Range 1–1000

hFE Vce ≈ 3 V

hFE Base Current ≈ 10 µA

Transistor Leakage ICEO Test

Range 10 nA–20 µA

Battery Test

Load: Current
9 V battery: 15 mA
1.5 V cell: 150 mA
1.55 V button cell: 0.8 mA
Display reading ≈ battery voltage

LED Test

Max. Test Voltage 3.2 V

Test Current Ranges
0–2 mA; 0–10 mA

LED Lighted Test
Display reading ≈ forward voltage to LED

Safety

N/A

Physical Characteristics

Size (W x L x D)
84 mm x 175 mm x 31 mm

Weight (including battery)
0.33 kg

Operating Ambient Temperature
0°C to 50°C

Operating Relative Humidity
0% to 80%

Power Supply
9 V battery

Battery Life
200 hours typical (alkaline)

Ordering Information

DMM 353

Included Accessories

Right-angle Test Leads 012-1382-00
Spare Fuse 59-0183-00
9 Volt Battery
Operator's Manual 070-8940-00

Optional Accessories

Holster 118-8733-00
Soft Carrying Case 118-8338-00

TekMeters are powerful, multi-purpose instruments of great utility and convenience. A DMM and digital scope in one, TekMeter brings oscilloscope productivity to DMM users, and a low cost scope and multimeter to portable oscilloscope users. Because of its familiar DMM-like design, TekMeter's dual interface and display are immediately accessible to DMM users without oscilloscope experience, replacing learning time with productivity.

TekMeter has all of the usual capabilities of a high-end DMM, plus it can perform both basic and advanced oscilloscope functions, measuring signals up to 5 MHz.

The TekMeter family consists of the single channel THM 550, the dual channel THM 560, and the dual channel THM 565 deluxe model. Because they have standard banana plug inputs, TekMeters work with standard DMM accessories such as temperature sensors and pressure transducers.

MULTIMETER SPECIFICATIONS THM 550, THM 560, THM 565 (unless noted)

Resolution
4000 count, 3¾ digits

DC Voltage Ranges
400.0 mV to 850 V

DC Volts Accuracy
± (0.5% of reading + 5 counts)

True RMS AC Voltage Ranges
400.0 mV to 600 V

AC Volts Accuracy
50–60 Hz ± (2% of reading + 5 counts)
at 500 Hz ± (3% of reading + 5 counts)

Resistance Ranges
400.0 Ω to 40.00 MΩ

Resistance Accuracy
± (0.5% of reading + 2 counts);
40 MΩ: ± (2% of reading + 5 counts)

Diode Test Range
0 to 2 Volts

Continuity Check
Audible/Visible Indicators

Modes
Min, Max, Max-Min, Hold, △Hold

Scope Specifications

Digitizers, Channels
(THM 550) 1
(THM 560/565) 2

Maximum Sample Rate
25 MS/s per channel

Bandwidth
DC to 5 MHz

Vertical Sensitivity
5 mV to 500 V/div

Peak Detect
40 ns

Record Length
256 points

Reference Waveforms
(THM 550/560) 4 waveforms
(THM 565) 8 waveforms

Setup Storage
(THM 550/560) 4
(THM 565) 8

Reference Screens
(THM 550/560) 1
(THM 565) 8

Acquisition Modes
Sample, Spike Detect, Smooth, Roll, Dynamic Display DSP

Trigger Modes
Auto-Level, Auto, Normal, Single-Shot

Operation Modes
AutoRange, Manual, Single Shot, AC-line Test
(THM 565) AC-line Test w/ Time Stamp, Motor Test

Cursors w/ Readouts
CV, CT, 1/CT

Measurements
Frequency, Period, Max, Min, Pk-Pk, Duty Cycle
(THM 560/565) RMS Power, THDF

Waveform Math
(THM 560/565) Add, Subtract

Display Update Rate
Up to 500 waveforms/sec

Instrument Specifications

Backlit Display THM 565 only

Power Source
6 AA batteries

Battery Life
5 Hours typical (alkaline cells)

Warranty Length
1 year

Safety Certification
UL, CSA

Ordering Information

THM 550, THM 560, THM 565

Included Accessories

Test Leads 012-1147-00
User Manual 070-8840-00
Quick Reference Guide 070-8948-00

Optional Accessories

Deluxe Probe Set TXMDXPB
Soft Case with Neck Strap THM5SCA
Transport Case THM5HCA
Rechargeable NiCad Battery Pack THM5BAT
Quick Charge Battery Charger THM5CHG

These accessories and **A600 Series Current Probes** are described on page 8.

TekMeter Accessories

Soft Case THM5SCA

The Soft Case has an adjustable neck strap which frees you to make measurements that require both hands. A thumbscrew holds your TekMeter securely in the padded case, so even if tipped upside down it won't fall out. Finally, the Soft Case is also a carrying case with handle. There is space inside for probes, probe attachments, and a pocket for notes or reference guides.

Transport Case THM5HCA

The Transport Case is for the person taking a TekMeter from site to site and needing the protection of a hard-shell case. The rugged, foam lined case has die-cut spaces for a TekMeter, a set of probes, two battery packs, and one current probe, such as those in the A600 Series.

Rechargeable NiCad Battery Pack THM5BAT

The Rechargeable NiCad Battery Pack is specially designed for your TekMeter. With 750 milli-amp hours of capacity, the TekMeter Battery Pack has 50% more energy than regular NiCads. Matched cells ensure that the battery pack delivers full power. Buy two and keep one in the THM5CHG charger.

Deluxe Probe Set TXMDXPB

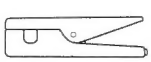
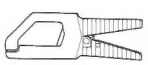
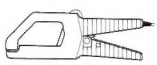
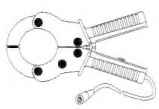
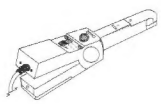
The Deluxe Probe Set consists of four, high-temperature, silicone-insulated probe leads with matching attachments. Their 1 meter leads have a banana jack on each end. Each set comes with a very sharp test point for scratching off conformal coatings or corrosion that might interfere with an accurate reading. The set also includes two mini-plunger clamps for hands-free operation, one red hook-style test clip, and one black wide-jaw alligator test clip for secure attachment to ground.

Quick Charge Battery Charger THM5CHG

Never be without power! Charge your THM5BAT NiCad Battery Pack in one hour or less. The smart charger senses when the battery pack is fully charged and shifts into trickle charge mode to keep it fully charged, maximizing the life of your battery pack. A wall-mount transformer and a cigarette lighter adapter are included.

TekProbe A600 Series Current Probes

Clamp-on current probes provide an easy, non-invasive way to observe signal waveforms. In cases such as switch-mode devices, it's not the voltage but the current waveform which contains the information you need. Since you can clamp the current probe around the conductor—insulation and all—without exposing bare wire, it is a safe and convenient way to make a measurement. Current measurements including harmonics are critical in rotating machinery line power evaluation, and for all switch-mode power supplies. A600 Series Current Probes are engineered to support precise measurement with your DMM, TekMeter, or oscilloscope. All A600 probes can be used with your DMM, even the A621 and A622, which include BNC to shielded banana plug adapters.

	A603	A605	A610	A621	A622
Frequency Range	45 Hz to 1 kHz	48 Hz to 1 kHz	DC to 440 Hz	5 Hz to 50 kHz	DC to 100 kHz
Max Input Current	150 A_{Peak}	500 A_{Peak}	500 A_{Peak}	2000 A_{Peak}	100 A_{Peak}
Output	1 mA/A	1 mV/A	1 mV/A	1 mV/A 10 mV/A 100 mV/A	10 mV/A 100 mV/A
For	DMM	TekMeter, DMM	DMM	Scope, DMM*, TekMeter*	Scope, DMM*, TekMeter*
Max Conductor Diameter	12 mm 0.47 in	30 mm 1.18 in	30 mm 1.18 in	54 mm 2.13 in	11.8 mm 0.46 in
Termination	Shielded Banana	Shielded Banana	Shielded Banana	BNC*	BNC*

*With included BNC to shielded banana plug adapter

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3/94 WSS 50M 3MW-8848-1